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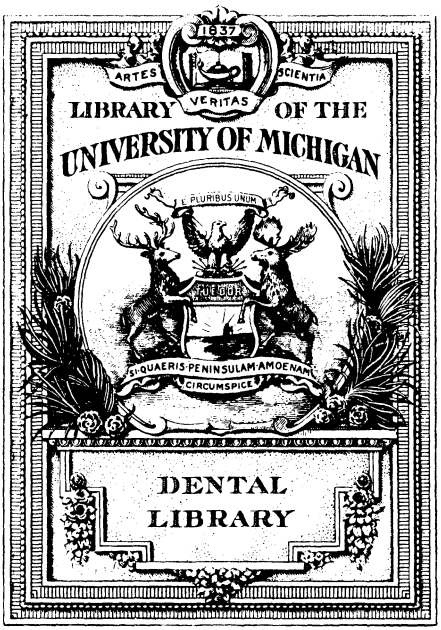
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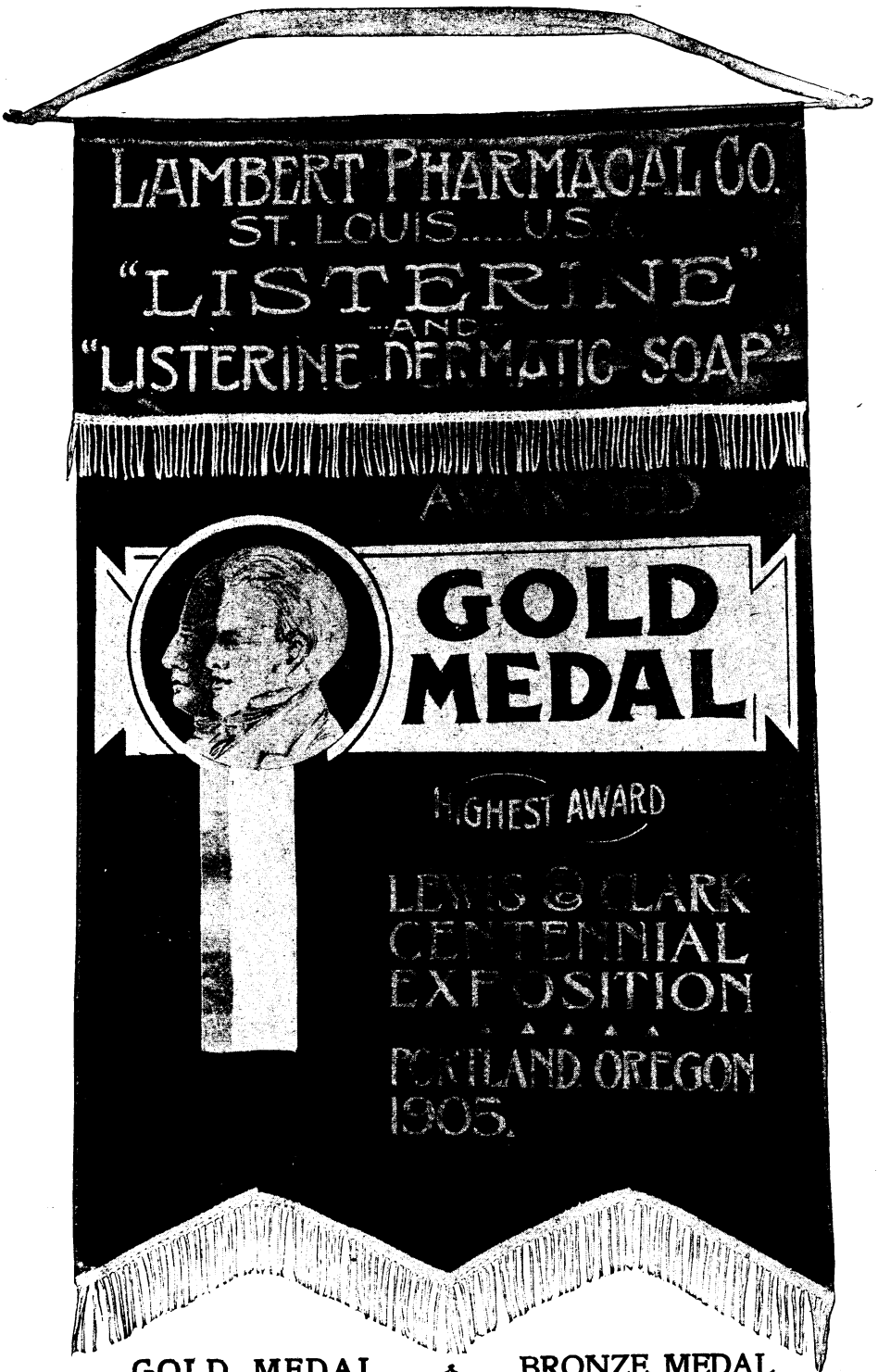

GOLD MEDAL
ST. LOUIS, 1904

BRONZE MEDAL
PARIS, 1900

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PROGRESSIVE COURSE OF PRACTICAL INSTRUCTION

ORTHODONTIA.

BY J. N. M'DOWELL, D. D. S.
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CHAPTER XIV.

ELONGATING TEETH.

In forcibly erupting teeth the peridental membrane plays an important part, modified by age of patient. The older the patient the more closely the bony walls surround the teeth, while the peridental membrane becomes more inelastic with age. So often cuts are shown illustrating a method which, as a rule, is perfectly impractical, for the drawing down of a cuspid a distance of one-half to three-

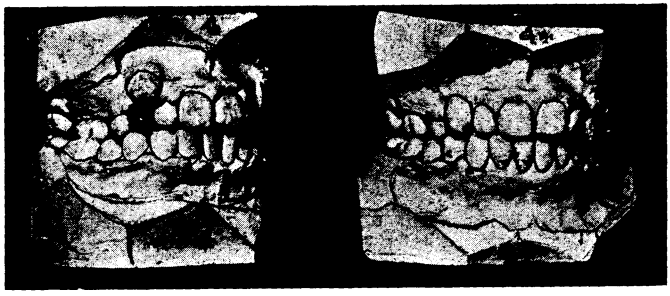

Fig. 1.

fourths of an inch. When elongating an impacted tooth a great deal of bony structure has to be absorbed and the tension of the peridental membrane overcome. It is necessary to secure strong anchorage. In Fig. 1 a bicuspid has been extracted to permit the drawing down of the cuspid. In this case it is expected to move out the first molar, second biscupsid and lateral, which are in lingual seclusion. Advantage is taken of this by using the wire arch gauge 16, and expanding the arch laterally on both sides, at the same time drawing the tooth down with weak rubber ligature. As it is necessary to draw the cuspid

downward and backward at the same time, a spur is soft soldered on the arch distal to the position of the cuspid, then a rubber ligature is hooked over the spur on the arch and over the spur on the cuspid

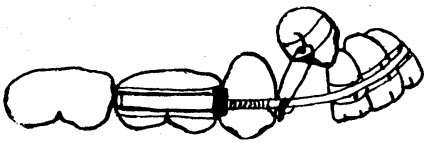

Fig. 2.

band (Fig. 2). When a tooth is entirely imbedded in the process, and it is impossible to secure a hold with a band, it is best to drill a

Fig. 3.

pit in the tooth about one milimeter in depth and cement in a pin-head spur. Many are liable to make the mistake of using the rubber ligature too strong, pulling the spur from the tooth; use weak rubber ligatures at first. Elongating a tooth should be a slow process. It is always best, in the majority of cases, at first where the pin spur is used, to make the attachment for elongating teeth to the upper arch, then as soon as the tooth is drawn down sufficient to put on a band

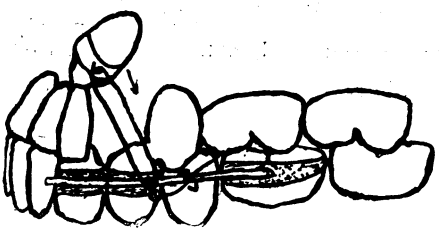

Fig. 4.

attach the rubbers to the lower arch. The continued anchor attachment to the upper always depresses and draws the anchor teeth outward. In the cases like Fig. 3 the attachment should be made in

the lower arch. Here four teeth are used as anchorage, so that the upward stress brought to bear on the teeth is overcome by stationary anchorage and also by the contact of the lower against the upper, preventing elongation of the lower (Fig. 4). These cases are retained by soldering three bands together.

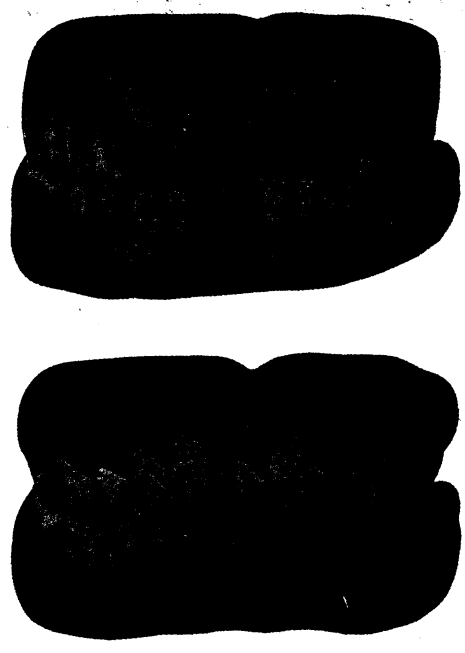

Fig. 5.

The method of elongating all of the anterior teeth by the up or down spring pressure of an arch is misleading. Even if one tooth at a time were elongated with this pressure, the anchor teeth are bound to be slowly elongated. The only perfectly sure method is to anchor to as many of the lower teeth as possible, banding all of the anterior teeth and soldering these bands together, then drawing one or two teeth down at a time, not more than two at one time. Sometimes it will be impossible after maturity to draw the anterior teeth down and retain them there permanently, especially if they are stunted by malnutrition when developing. A most excellent plan under such circumstances is to draw the teeth down as far as possible, then retain

for six or eight months, or until fairly firm in the process, and then cut off and crown the teeth, using crowns sufficiently long to secure an occlusional contact, as in Fig. 5, where splendid improvement has been made by Dr. Ross (From *Dental Cosmos*).

Fig. 6.

Fractured Teeth.—Often children, especially boys, will have one or two of the front teeth broken off (Fig. 6). This unsightly condition is often allowed to remain, the parents, and even the dentist in

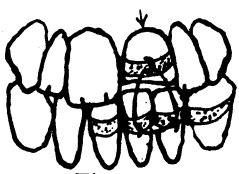

Fig. 7.

many cases, believing that the only method is to cut the tooth off and to crown it. There is no substitute for the natural teeth. Save them if possible. Attachment for anchorage was made to the incisor below, soldering all the bands together (Fig. 7) the slight elongation of the incisor in such a case is an aid to the occlusional contact. Children should wear weak rubber ligatures night and day, except when eating or in school. In wearing rubber ligatures patients soon become very proficient in putting them on and removing them. The tooth is drawn down slowly. Draw it down a little further than necessary to allow for the backward spring. Retain by soldering three bands together.

(To be continued.)

PROSTHETIC DENTISTRY.

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CHAPTER XXXIII.

We have still under consideration the subject of "Detachable Teeth," as relates to crown and bridge work, and will continue along this phase of study until all creditable methods have been fully considered. In this paper we give attention to the Dr. Steele method.

W. L. Truesdale of Columbus, Ohio, gives the following essentials and we will later render the critique:

"In this tooth we think all of the objections raised to the Mason and all other interchangeable facings have been eliminated, and without encountering other serious objections in their stead. We mention the Mason specifically for the reason that the principle involved is almost exactly the reverse of ours, and also from the fact that it is no longer in the market.

"The facing passed the experimental stage, and had been given several years of test in actual practice, before this company was formed to manufacture it, more than two years ago.

"Dr. Cigrand's articles have so clearly pointed out advantages to be derived from a facing of this nature, that we need not touch on that part of the subject.

"We believe it essential, however, to call attention to several points of merit in our facing, which are improvements on all previous efforts in this direction.

"Every measurement of the hole and slot are made according to a standard, and accurately ground by machines to correspond to that standard, insuring absolute interchangeability. The end of the hole and the end of the slot are exactly the same distance from the incisal edge in all facings whether the facings be long or short, making it possible to substitute a long facing on a bridge after absorption has occurred, for a short one placed soon after extraction.

"Inasmuch as there is no metal baked in the facing, there can be no hidden checks, due to unequal expansion or contraction.

"We note the objection you raise to the use of cement as a means of retaining a facing. At the same time we have yet to learn of a case where cement holding one of our facings has washed to a depth greater than the width of the surface exposed, and this seems to be true as concerns porcelain inlays, and other dentures applied by means of cement. All parts of the facing and backing fit so closely that the width of cement surface exposed to the action of the acid of the mouth is very small.

"The principal inquiry made concerning our tooth is with reference to its strength. In this we believe the tooth should be considered as it stands after the work is completed, and the facing cemented to the bridge or crown. The back being absolutely flat, and all glaze removed, unites readily with the cement and thus the facing, cement and bridge form one solid mass or structure, of greater strength than a facing held against the bridge by means of metal pins or other device. In practice this is demonstrated by many bridges made with our facings, which replace bridges made with pin facings. The change having been made on account of frequent breakages of the old style facings. In all such cases, the percentage of breakages has been greatly in our favor. In some cases the breakages are eliminated entirely, and in others their frequency has been greatly reduced."

Inspiration and good, wholesome thoughts from the pen of Dr. C. L. Frame will go well in connection with the idea that we must concern ourselves in the problem of performing our prosthetic work with easier means and with greater assurance of permanent or at least better results. The word permanent is so suggestive of eternity that for want of a clearer term it will suffice for the thought intended. This is what Dr. Frame had to say in the *Dental Summary* of July, 1905:

"If we glance over the literature of the profession for the last decade we will be astounded at the amount of time and energy that has been spent inventing special instruments and methods of repairing bridge facings. Article after article has appeared, instrument after instrument invented, yet today we have no practical plan of repairing a bridge or crown containing a broken pin tooth. Why not recognize the truth at once that the pin tooth was never adapted to this class of work? They were invented and first used for plate work that can be removed from the mouth and repaired in the labora-

tory. As bridge-work came into use, the best at hand was selected and it has now after years of trial been demonstrated thoroughly that they are not suited for any work that is fixed in the mouth.

"The profession has been groping about for something better—something radically different and really adapted to fixed crown and bridge work. I thoroughly believe that this tooth (*Steele's Interchangeable*) which I have had the pleasure of describing to you is exactly what we have been looking for."

The manufacturers of the Steele Detachable Tooth tell us that the facings are made of dense porcelain and can be ground and repolished, and this is an excellent quality in a tooth-form, since few teeth indeed, whether in plate, crown or bridge work, can be properly adjusted or arranged and assembled without necessitating some disturbance to the original tooth form. In fact the major number require some grinding or alteration in general appearance and adaptation. Hence the quality of being able to repolish is commendable.

The Columbus Dental Manufacturing Company of Columbus, Ohio, have expended much money to produce a creditable product, and the management have this to offer as to the tooth:

"The tendency of the day is to avoid the unsightly and vulgar use of gold, particularly for the anterior teeth. This can only be accomplished where the facing offers the maximum degree of strength, and can be easily replaced in case of accident. Steele's Interchangeable Tooth possesses every requirement in a facing for this purpose, and combines all of the advantages found in previous detachable teeth, and has eliminated their disadvantages. The facings are no thicker than the ordinary pin facing, and therefore can be used wherever a pin facing has been used.

"The tooth consists of a facing of dense porcelain and a backing of gold or platinum alloy. The facing is ground absolutely flat on the back and contains a hole and slot. The backing consists of a flat piece of metal to which is affixed a post, as shown in the illustration. The facings slide on the backing, the post of which enters and fills the hole and slot in the facing. The facing and backing fit accurately, but admit the retention of a sufficient amount of cement to make a firm and lasting union.

"All of the surface of the facing to which the cement is applied is carefully ground, and all of the glaze removed, which insures a

firm union of the cement to the facing. This is not possible with facings where the cement must be applied to a glazed surface.

"The facing when cemented into position in this manner is immeasureably stronger than any other tooth."

These teeth are so baked that they are wider at the cervical portion than those usually found in the supply market, hence they admit of running the gold backing well up to the gums, strengthening the case materially without display of gold. The old-fashioned bell-shaped tooth for bridge work should be cast off as not consistent with good mechanical effect and out of accord with the truly aesthetic.

The method of construction is quite simple and should not deter any practitioner from attempting their use.

Grind the tooth to the model with the backing removed exactly as you would a pin tooth. Cover the post with anti-flux, then place a small piece of 20-karat solder on the flat side of the backing and over the lug or rivet, which should be first touched with borax. Hold it in the flame of a Bunsen burner, which will draw the solder the whole length of the perforation. Then place the backing on the tooth and trim sides with plate shears, leaving the incisal end longer than the facing. Grind the backing to tooth at neck so it will be even and smooth with the porcelain. Now place the teeth on the model and wax to place with hard wax. When adjusted and ready to invest, slip off the porcelain facings. Again brush over the tube and surface of the backing with anti-flux.

A summary of their advantages would read: Repairs, if ever needed, quickly made without removing bridge from the mouth.

Simple and easy to manipulate.

No special instruments or apparatus required.

The bridge can be instantly cooled after soldering.

No porcelain present when soldering, therefore no checking or discoloration of facings.

No unsightly gold tips.

Each facing can be ground to the gums after the bridge is made and in the mouth, thus insuring a perfect adaptation and sanitary condition.

Makes it possible to insert a bridge immediately after extraction, and after absorption occurs to replace short facings with longer ones without removal of bridge.

This gathers the main points in its favor; the objections or demerits are few, though they should be mentioned. Primal demerit is the fact that the entire palatal (upper) or lingual (lower) surface is backed by metal either gold or platinum, and I beg to refer the reader to the preceding chapters for arguments against this form of tooth. The metal does change the translucency of the artificially substituted tooth, and any system or method which still adheres to the metallic backing approaching the insisal edge must of necessity lack ideality; though the Steele tooth might easily be so constructed as to overcome even this objection.

The second demerit presents itself in the hollowing out or grooving of the facing parallel with the axis of the tooth and is a weakened facing because of this elimination of porcelain, aside from the darkened center contributed when using cements which change their shade subsequent to setting.

It has been my good fortune to employ the Steele Detachable tooth and I am earnest when I recommend it as a splendid success, especially when applied to the anterior twelve teeth. The tooth deserves to be recognized as a substitute of excellence and when the patient's mandibular movements and temperament are taken as an equation, it has a wide field of promise.

(To be continued.)

DENTAL THERAPEUTICS.

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CHAPTER XXXIV.

In the discussion of the methane series, especially that pertaining to chloroform and ether, we have seen how they affect certain cells and tissues, and the biological phenomena that is connected with these two last named agents with reference to their action has not as yet been fully cleared up. Ether and chloroform act on the central nervous system and produce many of the phenomena observed in alcoholic action of this same series. It will be observed, however, that the habitual use of chloroform and ether does not bring about the conditions constantly observed in the habitual use of alcohol.

In the administration of ether and chloroform as anaesthetic agents it has been observed that the paralysis of the central nervous system begins very much in the same way as alcohol, by first affecting the highest cerebral function passing down through the lower intracranial distribution. We might say that the very highest function of the nervous system of higher animal life is first affected, and the effects passing on to the distribution of the nervous system that is distributed to the less important tissues and cells of the body. According to the best authorities upon brain physiology is that self-control belongs to that part of the animal physiological function which stands for the highest for all vitalistic function of cell life, and it may be said that all the compounds of the methane series seems to affect self-control on the very first appearance of its action of the animal economy. The spinal cord is the first affected, the effects then passing to the medullary centers, which are really the last to become paralyzed.

Some of the best writers upon this subject are of the opinion that the motor centers of the brain are the first stimulated, followed by paralysis. The discussion of this phase of the subject need not be discussed here, for the simple reason that all the points were brought out relative to the effects of alcohol, chloroform and ether in the former paper. The excitement that follows the administration of

chloroform and ether is supposed by some to be due to the irritation which they produce on the periphery nerve endings.

It might be well to remark here that the depression of the motor brain centers with ether and chloroform have proven experimentally to be greater than in the case of alcohol, for the simple reason that it requires a stronger electrical stimulant to produce muscular movement than it does in case of alcohol.

The question is sometimes asked, Does the anaesthetic produce insensibility equally throughout the body at the same time? This question can only be answered negatively, for it is a well demonstrated fact that the back and the extremities are the first to become affected, followed by the genito urinary tract. There has been considerable discussion as to whether the depressive affects of these agents take place first in the sensory or motor centers. The weight of opinion, however, seems to be in favor of the sensory nerve centers really being the ones that are first depressed. This is of such little importance that it seems quite unnecessary to go into the discussion of this question at this time, for the simple reason that the depression in one of these centers is very rapidly followed by the same effects in the other.

It might be well to state in this connection, however, that electrical stimulation of the motor area produces movements sometimes after sensation has been lost, but the irritability of this area becomes entirely passive when the profound stage of anaesthesia has been brought about; then the medullary centers become paralyzed, but this center can be affected by reflex stimulation long after it fails to send out impulses. The respiratory centers will respond to stimulation for a considerable time if the superior laryngeal nerve is accessible to electrical stimulation. The motor cells seem to be only partially paralyzed under such circumstances, being unable to send out nerve impulses unless these impulses are received from the sensory nerve endings. This peculiar phenomenon is probably the result of asphyxia under these anaesthetics.

Chloroform and ether act upon the respiratory centers both in a direct and indirect manner. In the first stage of the anaesthetic the respiratory movements may be temporarily stopped by reflex actions due to the irritation at the peripheral ends of the trigeminus in the nose and throat and the pneumogastric in the larynx and bronchi. It may be said, however, that this depressive condition of the nerve

endings of the organs of respiration usually will not last long. In the second stage of anæsthesia respiration usually is very much interfered with and sometimes appears very irregular. This is frequently the result of convulsive strugglings, which, as a rule, are followed by periods of asphyxiation, alternating with gasping movements of the respiratory organ. When the third stage is reached in anaesthesia the peripheral nerve endings have become paralyzed and the reflex irritability is entirely lost and the direct action of the anaesthetic agent is manifested by the slow, shallow respiratory movements, and if the anaesthetic is pushed this condition may increase until the cerebral centers have become completely paralyzed. In man and the dog and cat respiration is gradually slowed down, becoming entirely extinct, while in the rabbit there is a period just before respiration ceases in which the animal breathes rapidly and readily for a few moments and at once respiration is completely arrested. Up to the present time there has been no explanation given as to why this difference exists between the rabbit, dog and cat.

The action of anaesthetics on the circulation was not very satisfactorily studied because of the complication that might exist between the respiratory action and the circulation. So it became necessary in order to study the circulatory conditions that artificial respiration had to be kept up and the blood examined while aeration was going on, and the first changes observed in blood pressure was a slowing or even a temporary standstill. This condition of slowing is due to reflex stimulation of the inhibitory action of the nerve centers. In some cases there is a short rise in blood pressure, a condition that is due to the reflex action on the motor centers. In other words, the temporary standstill of the heart is due to reflex action on the inhibitory centers, while the rise in blood pressure is due to the action on the motor nerve centers.

These conditions are beautifully illustrated by apparatuses that are used for such purpose, and in order for one to understand thoroughly the meaning of such conditions they must study the animal's heart during the process of anaesthesia by these instruments. If the blood pressure be raised for a short time and the administration of the anaesthetic is continued it will be observed by the tracer that the fall in blood pressure will begin to manifest itself and gradually become slower and slower, and if the anaesthetic is continued the

blood pressure will fall to zero, which is an indication that the heart has ceased to respond.

Many apparatuses and devices have been instigated for the purpose of stimulating and starting the heart in motion again after it has fallen to the zero point. Some extremely interesting experiments have been carried on by Dr. Neal and Professor Stewart, Professor of Physiology of the Chicago University. It would be quite impossible to go into the discussion of this subject just at this time, in as much as their experiments have not been completed and published in full. But those who may be interested in this phase of the subject can find what has been accomplished in the various physiological journals in the last few years.

As to the fall of blood pressure and just why such condition takes place is a question that has been discussed by a number of investigators, the majority of whom are in favor of the opinion that the weakness of the heart is primarily the chief cause. There are many, however, who believe that the heart is not affected and that the slowing is principally due to the failure of the vasomotor centers to respond to the sensory nerve stimulation which is transmitted to the motor centers.

It is quite commonly believed that there is considerable difference between the action of ether and chloroform on the circulatory system, but the majority of experimenters believe that there is practically no difference between these two drugs. It might be said, however, in passing, that as a rule chloroform acts more powerfully in a larger number of instances than does ether. The frog's heart beats more slowly and weakly and becomes more dilated with chloroform and ether than is usually the case in the mammalian heart.

The auricular portion of the heart is acted upon by smaller quantities of these drugs than is the ventricle. The former portion of the heart may become so weak that it will scarcely make a tracing of the apparatus, while the ventricle continues to keep up its action for some time. Therefore the action of chloroform and ether on the heart is manifested in the weakening of the auricular contraction, with sometimes increased ventricular action. During anaesthesia it was found that the blood current in the veins of the extremities was very much slower than usual, while in the brain and abdomen there is a decided dilatation of these vessels (Pick), thus increasing the flow of the blood in these parts; however, it will be remembered that

some observers claim that the brain becomes anæmic under anæsthesia. Thus it will be seen that there is a vast difference of opinion upon this point, but most likely such observations are due to the fact that the findings were made at different periods of the anæsthesia. As a matter of fact, in the early stages of the anæsthetic the vessels become dilated, but as narcosis continues the vessels become contracted and the brain is anæmic.

Kemp has shown that marked contractions of the renal vessels of the dog takes place under ether anæsthesia, thus lessening the secretion of urine. In many instances this fluid may become entirely arrested or albumin may appear in the urine, also hæmaturia may manifest itself in some cases. So far as is known no true explanation has been made for this phenomenon. Just whether such condition exists in man or not has not fully been cleared up; however, albumen has been found in the urine in man after ether anæsthesia. Chloroform apparently does not produce such conditions.

(To be continued.)

OPERATIVE DENTISTRY.

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III.

A SERIES OF OPERATIVE SHOP TALK.

The Importance of Close and Frequent Attention to the Gingivae.

In a great majority of cases people seek the services of a dentist with one idea in view; that of having carious conditions of the teeth attended to in the way of filling, or the artificial replacement of such organs as may be lost. That there are other lesions about the mouth needing the dentist's care many do not seem to fully comprehend; or if aware of something in some way unpleasant and disturbing at times they do not realize that it is important to their future welfare that intelligent diagnosis be made and a proper treatment be given. Many patients come and elect what is to be done in a way that the dentist can discuss and advise only along the line of that particular service without his motive being questioned. Too often the extremely careful, painstaking, conscientious dentist who feels called upon to discover every condition needing professional attention is looked upon as having an eye to business. It is scarcely less than his duty surely at some time during the sitting or sittings to call attention to any and all pathological conditions, having first made as careful diagnosis as possible or occasion permits.

It is, however, a fact that many dentists, many fine and careful operators, capable as the average, possibly more, in a pathological way, neglect certain conditions of the gingivæ that need attention as much as carious teeth. They are bent on making a series of fine fillings or inlays, or in making crowns and bridges and doing things to the teeth—the teeth themselves, and become so thoroughly absorbed in that that they do not give the observation necessary always to the adjacent tissues.

To be sure if lesions of the gums have gone on to such an extent that it is plainly apparent to a casual observer that some treatment

is necessary few operators would neglect treating them if opportunity was afforded; but it is the initial impairment that is too often overlooked. The removal of calcareous deposits is, for instance, not done with the thoroughness that is called for, and the subsequent treatment to the gingivæ to restore normal conditions is not always carried beyond the one application immediately following the removal of deposits. This may be sufficient in some cases, but usually subsequent attention is needed. The proof of this assertion is this: that there are few dentists, we venture to say, who have not had decided cases of pyorrhea alveolaris develop right in the mouths that have been, so to speak, under their daily care. If gingivitis is a milder form of the same disease they have gone through this and on to the more severe stage—to the stage when the alveolus and peridental membrane is affected and begins to break down—to a carious condition of the process. How frequently may the alveolus between the teeth, that wedge-shaped septum that in health holds the gum up into the inter-proximal space, excluding food deposits, etc., be found broken down and gone, and instead of the space being filled with good tissue a pocket is found into which all sorts of food debris readily finds its way, and not being easily dislodged by the usual efforts of cleaning the teeth and rinsing out the mouth, lies there to become foul and festering, badly tainting the breath and fostering worse conditions which, of course, rapidly follow. The bottom of every such pocket is usually denuded of gum tissue, and a carious condition of the process exists. A number of such pockets may often be found in the mouths of mature people (usually between molars) on a close examination, that would not be suspected on a casual observation. In fact, teeth not infrequently become sore, festering and loosened before either the dentist or patient has realized the extent of the damage that has been going on.

Of course the dentist can not be blamed for neglect which belongs to the patient, but the importance of not neglecting a lot of seeming minor lesions and defects should be realized by the dentist and impressed upon all such patients as would appreciate advice for their best interests and welfare, and as far as consistent upon those who are inclined to be indifferent or suspect the good motive.

It can not be expected that a dentist is going to find and take care of such gingival lesions and pathological conditions, particularly when time must be consumed and treatments pursued for several

sittings, without a reasonable compensation; but there are little treatments that may be given casually and instructions for the patient to follow in caring for themselves without making additional expense, but with the suggestion that expense may follow if these things develop to an extent to require special treatment.

One thing to be done on the part of the dentist is (besides painstaking explorations along gingival margins), to press the finger on the gums well up, or down, on the tooth and bring it to the gingival line, when not infrequently a thin line of pus will show a diseased condition perhaps not otherwise suspected.

When this condition is found the patient can not remedy it, but may help materially under the dentist's advice. Here we have a pocket, but with not yet much absorption of tissue and a blunt probe or the blunt point of an abscess syringe will not readily enter it. It should be washed out, however, and this may be done by using a hypodermic syringe with curved needle or a small round blunt point may be inserted by first stretching away the gingiva by the insertion of a thin point. After washing out with warm cinnamon water or a considerably reduced preparation of dioxogen, say 1 per cent, other healing and stimulating remedies may be applied by the use of thin splints of sterile orange wood or pieces of quill. The nature of the patient's co-operation in the treatment is to use antiseptic and stimulating washes, faithfully keep the teeth clean, *and massage the gums* as the dentist directs and keep appointments faithfully for such treatment as he must give personally.

The importance of a system of finger massage for the preservation of healthy gingival conditions can hardly be overestimated, and especially as a prophylactic measure; this with the proper use of the brush should be part of the education of every child as to the care of the teeth.

The trained eye of the dentist will note certain gingival defects or disturbances, which the patient, unless made particularly observant by the dentist's previous advice, would hardly be aware of, though closely scrutinizing. This refers particularly to the little tip of gum that falls between the teeth, a part of the gingival festooning. Casually observed, it looks pink and healthful, at least in the early stages of the defect, but the trained eye notices a deeper shade in the coloring and a suspicion of flabbiness, which is verified when this tip is tested by touching with a suitable small pointed instrument. It

will be found soft, flabby and loose, so that it may be raised out of its recess, lacking the attachment of healthy gum, and bleeding freely at the slightest touch. Underneath on the neck of either tooth the skilled operator will usually find a little serumal calcic deposit, though so little sometimes it is difficult to determine, but it is usually there. Its removal alone without other treatment usually will turn the conditions toward health, but washing out and the introduction of aseptic and stimulating medicines are indicated as a procedure more certain of desired results. As an adjunct, massage is indicated to bring about normal conditions, and, if continued daily, doing much if not all that is necessary to prevent recurrence of disease.

The American toothpick is largely responsible for many gingival lesions that result in those pockets heretofore spoken of between teeth, but there is a defect there to begin with to call for the use of a toothpick. Food has found a way to lodge distressingly between the teeth, and the person so afflicted should seek the services of a dentist for a correction of the evil, and not keep picking with a toothpick for mere temporary relief. Usually the dentist will find that one or both teeth between which the trouble occurs are more or less decayed. In filling such teeth the evil, concerning lodgment of food, may be corrected if due attention is given to proper restoration of the points of contact between the two. If a pocket has been already formed in the alveolus, that should be treated until health is restored; but it must be noted that rarely or never does new process with its overlying gum build up to original and normal outlines. It does well to fairly eliminate the depression or pocket without building up rounded-out proportions. The eschar may be healthy, but there is loss of tissue that will not come back to give former outlines.

A tooth may lose its pulp and, if treated and filled properly, may be retained as a healthy and useful organ indefinitely, being supported and nourished by or through the peridental membrane and alveolus; but if the peridental membrane is destroyed, the tooth is lost. If ours is the art of preserving the teeth, it is just as essential to give as much attention and care to the surrounding gingiva and other environments as to the teeth in themselves; and more so since it is a fact that more teeth are lost through the diseases in the tissue surrounding them than by the caries that destroys the teeth themselves.

Calcific deposits about the teeth may be due largely or entirely to constitutional tendencies, but this may be favored and augmented by local conditions, such as by peculiar forms of teeth, irregularity of position and by conditions of the gingiva, first irritated and inflamed by other causes than tartar. The initial cause of gingivitis may be something other than serumal calcic deposit, but irritated gingivæ results in a greater flow of serum, and from the greater flow more calcic salts deposit and so the calcic deposit may be a sequence in fact rather than the initial cause.

Whatever may be the initial cause, or however we may view the disease, or differ as to the proper name to use, the important thing to do in so far as our patients will give us the opportunity and co-operate with us, is to look after defects of the gingivae and associated parts with the same concern that we look after developing or developed carious spots on and about the teeth. With all due respect to operators who do diagnose the entire oral cavity when patients come for examinations, and who clean teeth conscientiously, and who neglect no conditions needing professional attention, there is a multitude who from one cause or another fail to find and check pathological gingival conditions, which, overlooked and neglected in incipiency, lead on to dire results—the loss of the very organs, earlier in life than need be surely, that we engage to protect and preserve.

(To be continued.)

ORIGINAL CONTRIBUTIONS

TOOTHSOME TOPICS.

BY R. B. TULLER.

Ai bane vorken in des country more as tree yare—enny kine ol vork—an Ai tank Ai quivt an do someting alse.

Ai tank hard, an ven Ai say, "Vell, Ai dond know," my ol voman her say, "Go headt, Ole, you got noder tank comin." So den Ai tank some more an Ai say, "Ole, vy you don't vork some scheme—you?"

Vell, my boy han go to school and han learn fine tings an han come home an learn em to me. Von was about a boy who stood all around on da burning dack. Ai tank da boy leven kinds of fool, but han gave me a yolt to try write some poetra, an get nineteen or therty-four dollars from some paper or magaskine, an here it vas. It bane bout boy also:

Da boy whose foot on von can vas stayed,
Dot han might brang heems eye up to
Dose hole in da fence vere der game vas played
Ven da game stood 0 to 2,
Hadt heems heart in heems mouth, ven de batter bat
Dan vas going to schange de score,
An hem tip-toed up and clang lak a cat
Ven de can break down—vat more?
—Yust sore.
Huh?

Ai tank dat perty goot, an every paper Ai send han to, tank also; but each von haf poetry stack up vaiting, an say it vould ben a long time my turn, so dey sen it back dat Ai not lose chance elsewhere. Yas.

Vell, den Ai bane perty goot man on rag chew in Norvegan, an Ai tank dees Ongleese han come easy by me, an Ai mek a goot lawyer. My ol voman say, "Ole, you snakker lak you born yare in Amerika."

Yas, Ai bane member of ward club an make speichen for Roosenvelt. Yas. An Ai look for good yob, but hey don't come yat.

Vell, Ai go down to de police court law school an Ai take all in an Ai say, "Ole, han don't tek such haluvafaller to mek lawyer—no vork—yust snakker; so Ai tank dat purty good, ef Ai hav bane a Norvegan. Law bane yust common sense. Ai bane har de chuge say dat.

Vell, den Peterson hem bane live nex door by me an han keep a dog. Von day a beeg policemen take him down by dose police court, bacause heem not pay dog license, and har say, "Ole, you bane lawyer now, you come by me an got dan fine cut out, un you gat half an half, an Ai gat half an half. See?"

So, Ai bane go to dan court un say, "Chuge, vot vor you fine Peterson—vor keep a dog? It bane contrary to de constitutions of Amerika. Eet dond bane a good schaeme anny vay; Peterson haar bane goot skitizen for goot many yare, an haar bite nobody—de dog. Ai demand dot you cut out dose fine—yas."

De chuge, heem look at me an schowl, an say, "Who you are, sir? Vot bisness it is ov yours?" Un Ai say, "Ai bane heems lawyer, Olson, an Ai bane heems neighbor, and heems dog hem play vith my dogs, and dey is all goot behaven togedder."

"Yaas," han say, "how many dogs you got, Meester Olson?" Un Ai say, "Two." "Two?" hem ask, "is dat all?" An hey look sharp, un Ai say, "Yaas, two—two big and two leetle." "Oh!" hem say, "Haf you paid your dog license?" Un Ai say, "Ai bane live dere ceng yare, un Ai don't neffer haf pay no license."

Un he glare at me un say, "You don't? Vell, Meester Olson, dese is von of dose times ven you can yust schip in. Eight dollars an costs. Mr. Peterson, you pay two dollars."

Vell, you bat Ai feel scheep an madt dat Ai cough up 'bout ten bones, un yust because Ai try to offend my neighbor's case. But, yimminie yumpin yackas! Vot you tank ven Peterson heem yak me up dat Ai gree to go half and half mit him? Heem pay two dollars, han say, an Ai pay ten dollar; das mek twelve, un Ai gree to go half an half; so han say sex dollar bane coming to him.

Vell, heems dogs can go to Skalamazoo nex time, you bat! an so can heem. Yaas!

Dan law trade vas all right un Ai vas a goot schmart lawyer, but dose chuges dey got a trust an a skinch on de whole bissness. Yass, un dey vould not omit me to de bar, dan vot dey say.

Den Ole ha vas up against it again, un Ai haf to pick out some oder trademark, so Ai haf some more tanks comin, an Ai tank de dentist trade hey don't bane no sklouch. Ai bane take note de dentist man hem vear rings an stick pins, and eef hem bane a lallapasozle, han vear vite vest an skilk hat. Mebbe heem sometime vear automobile cap an gazolene fume on hees handscaschef.

Yaas, Ai say, "Ole, you to dose dentist man trade! Dan vas goot schemes, un you vas goot vorkman, un de vay you can handle does canthook on de log roll, mek you perty near goot dentist already. In tree months you bane a goot von, Ai bat! Yas."

Vell, a friend by me hem say, "Ole, you haf to go to a skollege, same lak a doctor, only defferent—a dentist skollege, you know." Hem tell me go an see Professor Blank.

Ai seen hem. Say, heem bane a smoose proposition, an Ai bat swexteen cents haar bane—vat you call dese kine a man on der police force?—all same han talk goot Amerikan. Han tole me, "Ole," han say, "Ole," yust lak heem meet me every day for yare. "Ole, you look good to me, an dere vas great opporskunities for mans of your nationality, eider yare or back vere you came from, ef you care to go back. But dere vas millions of your own people over yare who need a dentist man dey canst talk to in dere own language. Vat you bane doing vor a livin, Ole? Lawyer? Vell, dat is an advantage sure. Den you haf some mechanical ability, bacause you bane goot at handle dose cant-hook on da log roll. Da goot, too. Yust bring round your scredentials, etc., and mastriculate" (vot ever dot vas). "Dose skourse vas only tree yare, an dose tuitions vas *only* $150 each skourse, an some etsketeras." (Vot dem was Ai dond find out yet.) "Here vas our book un ett give you de picture of de skollege an all de information vat you vant to know. Look it over an come round tomorrow an mastriculate. But, say, vy not do dot *now?* Yas, do it *now.*"

But Ai tank a vait, for Ai tank Ai see lot of money goin to git avay somvere. So Ai take de skollege book an go. Ven Ai got home Ai look heem over an Ai figure out eet cost bout $500 for dot skool bisness by hanself, an a beeg lot more vor books and vor dentist tools an tings. Yes. Who bane gone keep de family all dan time, an me, too? Huh?

Vell, Ai say to me, "Goot-by, Mr. Blank; you look goot to me, same lak you say; but Ai dond got so much time, an Ai dond got so

much money, an who, Ai say, gone keep de fambly and kids, huh? You for anoder look, Ole."

Den vat you tank? Ai get nex to de Union Dentist Skollege, and der boss han laugh bout Dr. Blank, an han say, "You haf a narrow scape, Ole. Tank vot dat cost, five, six, ten hundred, mebbe, un tree yare time, den your oxpenses. Say, vat nonsense! You come in yere, Ole, an Ai mak goot dentist of you in sex veeks, un you only pay me $400, an mebbe you begin earn something in a veek. Vell, my ole vooman hen gan got da money soaked in hen stockin, an Ai go to dot Union Skollege, you bet. Yas. Dat boss heem tole me de whole ting in von day. Professor Blank, et take heem tree yare to tole me. Ai tank das some difference, you bat! Huh?

In von veek de boss heem say, "Ole, you bane a schmart faller, an Ai tank you do vell to open an office in your house, or some oder house, an earn some money morning and night an evenings, an all de time you like. Put out a shinkle, Dr. Ole Oleson, Dentist, un yust saw wood. You can stay yere sex weeks ef you vant, an you can come back enny ole time and take anoder skourse, 25 per cent off for vot you already know. But you perty schmart man an you goot vorkman right now, an you dond vant to vaste any time getting a start of your own bisness. See?"

Yass. Vell, Ai yust got a goot start yanken teet an sticken in silver putty, ven a man name Gym and anoder name Yon han come, un Gym han say, "Let me see your dipeloma." "Yes," Ai say, "vot it iss? An han say, "Your license. Ai vant to see your license."

"Oh, yas," Ai say. "Ai dond get catch second time," an Ai bring out dose license.

Dis man, Gym, haar take dose license an heem give beeg grunt an haar say, "What the gridiron is this?" an den heem han over to Yon, an Yon han laugh out so loud you can hear swexteen blocks. avay, an haar say, "Vell, ef dat dond beat dose ragged pants Chews! trying to practice dentistry mid a dog license! Vell, Gym," han say, "han baint much vorser as some of dese oder fallers after all." An den haar roar again lak vild yakall. Yas.

By de yimminie yumpin yakass! Somepoddy dell me vot a poor man can do to make a livin vidout vorken! Yare Ai bane up against dose state board fallers an pay $25 for first offence of break de law, an tole never to try practice dentistry some more, till Ai gat me dipeloma an license. Ai bat you da whole caboodle state board stan in

vith Dr. Blank an dose oder high price lallapasoozles skolleges. Da boss by da Union heem say dot, and dot heem would fight for heem rights if me. Den heem say, "Ole, you come back un take anoder skourse by me, un you go *pass* dan state board un den tal um to go to hal. You know Ai give 25 per cent off for knowledge you know already."

But Ai tank about dat yat. Jam! dose Gym and Yon! Skeezacs! Ai gass it bane me fer de voods—or for de vood pile!—not yat.

Say, Ai got nodder tank comin, yas, an Ai gone gat me up a toos vash. Ha cost ¼ cent, 2 cents for de bottle an Ai gone skell em vor 50 cents. Dan goot skeem, Ai bat. "Dr. Ole Oleson's Ramady vor Sore Gumps." Ai bat dat bane a good ting. You see.

THE RUBAIYAT OF A DENTIST.

(Not for the Laity.)

BY H. N. L., CHICAGO.

I.

Today is Tuesday of the passing week
And I am going downtown—passing weak,
Some owing patients I must interview;
I pray I may have courage when I speak.

II.

Quite droll it seems—could I but laugh thereat!
There is a toothless Infant in my flat
For whom I have fixed many teeth, and yet
For whom I must fix many more at that.

III.

Sometimes when dancing in the Gilded Hall,
With someone who is not my Choice at all,
And hangs most heavy on my arm, I still
Am gay for she has Teeth to fix withal.

IV.

How often in the Moving Throng I pass
Some smiling Debtor-Patient, and alas!
'Tis then that I most impotently yearn
To be the Gas Trust and shut off their Gas.

V.

At last this is the Day I've longed for so;
So many times I've seen Her come and go,
But this time, different from the rest, she came,
And smiled and went, and left—a Wad of Dough.

VI.

Strange, is it not, that what my Patients say
About their Bills, to-wit: they can not pay,
I can not to the Landlord gayly go,
Repeat to him to wipe my Debt away?

VII.

Sometimes She comes and I through pity hark
To all her claims to Poverty and mark
Far down the Price. Next time, in furs and silk,
She says the inlay is too light—or dark.

VIII.

A Stranger came. He'd cracked his upper plate.
He was in haste; he had not long to wait.
I lit the Vulcanizer, went to eat—
Returned, smelt something burning! 'Twas—the Plate.

IX.

The Porcelain Bridge we set our hearts upon
Turns out bad or it prospers. And anon
We place it firmly in the mouth, and then,
Wearing a little Hour or two—'tis gone.

X.

Ah, Brother, when you've made a crown and guessed
You've packed and baked the porcelain like the rest,
And then you find the facing checked—swear not;
Prepare the Metal for another Guest.

XI.

Have you not noticed how they come to you
And say they broke the Tooth off biting through,

Or partly through, a piece of softened soup?
Now, in the Next World, will we hear that, too?

XII.

I sometimes think that when they make a Fuss
About the Bill, and come in to discuss,
And eke to cuss, they do not mean it all!
They still do have some little love for us.

XIII.

And when I hear them tell how many rows
Of teeth Dear Grandpa had; also, how grows
The Baby's Toothlet, I look wise the while
And fondly think how red the Schoppen flows.

XIV.

I know the Bum Work that I did so long
Has done my Reputation a great wrong,
For aught I know Tomorrow I may think
That I've been doing Bum Work all along.

XV.

It was when young I'd eagerly frequent
The Clinic, and would hear great argument,
But then, returning to my office find
Some Messengers my Creditors had sent.

XVI.

'Tis with the Clinic as it is with Wine:
Touch neither and the Soul will shrink and pine.
But, Brother, let's be moderate with it all,
For we be not Immortal nor Divine.

XVII.

Perchance the very gold we use Today
Was by the undertaker Yesterday
Filched from some quiet Mouth, and yet may serve
To gladden some one else—we can not say.

XVIII.

I sometimes see a Dentist in the Church
Grow sleek and fat and prosper, lurch on lurch,
Perhaps myself must envious grow and be
A Hypocrite or be left in the Lurch.

XIX.

Ah me! Could you and I with Him conspire,
Ere we at last reach our turn to retire,
To cause Punk Teeth to become punker still;
Then, Brother, we could move the Price up higher.

XX.

She said this morning what I've heard before—
That she must wait a while ere she have more
Work done upon her teeth. I faintly smiled
And handed her a side-comb from the floor.

XXI.

Ah know, my Brother, that our Days are few;
We Here and Now have yet much work to do,
And ere the hand begins to shake we must
Save ere it is too late—it's up to you.

XXII.

Sometimes when to my Patient I explain,
And try so hard to make my meaning plain,
I think no matter what I say, it is
No use. He thinks I do it all for Gain.

XXIII.

And as these lines I one by one let fall
And think perchance they be not good at all,
I hear the Empress pass along the hall,
I courage take and let another fall.

XXIV.

Yet after all what boots it to repeat
How Time is slipping underneath our feet,

If, though the task be harsh and long, and long
The day, we still can get enough to eat?

XXV.

I always think that brightest shines the sun
Upon the days when to me, one by one,
The Postman brings the Checks for which I sent
The Bills the moment that the Work was done.

XXVI.

Upon a day like that nothing must mar
My deep Serenity and, though not far,
I take a cab—ride to the Bank; meanwhile
Between my teeth there is a Good Cigar.

XXVII.

Each morn a thousand Roses brings, you say,
But, pray, where the Teeth which Yesterday
We fixed? How often thinking of them do
We hope the Work we did holds good Today!

XXVIII.

For aught we know the Ocean now may hold
Among the scattered pearls within its old
Embrace some Other Pearls which once were placed
'Neath Rosy Lips and which we've set with Gold.

XXIX.

And this direct from Omar:—when we've passed
Beyond the Veil how long, how long, will last
The World which our Departure seems to heed
As the sea's self would heed a Pebble cast?

THE END.

EDITORIAL

The last volume of the transactions of the Fourth International Dental Congress has just been issued. This completes the three volumes and gives to the dental profession some of the best thoughts that have ever been published in dental literature. There are between 115 and 125 papers that were read and discussed in the various sections of that meeting. In reviewing the material presented and following up the mechanical ingenuity that is manifested in the vast majority of these papers, one can not fail to see how practical dentists are and what great strides dentistry is making throughout the civilized world. There are representatives from many countries presenting the thoughts and the status of dentistry in their respective countries.

With all of this great volume of material one is struck by the absence of real and truly scientific research papers. While it is true that all the material contained in these three volumes is of the highest value to dentistry and in fact was very much needed, still at the same time we are forcefully reminded that we are greatly in need of scientific laboratory men in dentistry. Of course a great deal of dentistry is laboratory work, and very largely a matter of adopting certain mechanical or scientific principles that are already in use, thus making it to an extent a scientific calling, yet our profession is greatly in need of individuals who are devoting a small portion of their time to the clinical side of dentistry and a large portion to scientific research work. It seems in looking over these three great volumes of material that has just been published one can not fail to see how few are really interested in that phase of the subject, and yet when we look at the matter from a standpoint of earning a living, who is able to give this necessary time to such work? In strictly the scientific world we find men who have devoted their lifetime to research and investigation on very meager incomes, but there are few in dentistry who do not at once catch the money-making spirit, and whenever they do they have forever lost the spirit of true research.

It has been conclusively shown, not only in dentistry, but in other fields of the healing art, that the individuals who are constantly in touch with the practical side of their calling, or perhaps we might say those who have an opportunity of making an application of their scientific investigation, render far greater service to the healing art than those who are working on the problem of pure science without any opportunity of making it applicable in the relief of human suffering.

In the first volume of the transactions are to be found the pictures of the organizers of this great Congress. When we consider the volume of work that was accomplished we are somewhat surprised that they came out of this struggle looking even as well as they do. There are many things that could be criticised with reference to the organization and the carrying out of their aims, still we should always remember that the work of organizing and carrying to a successful issue such an undertaking is most always fraught with more or less difficulty and error; but honesty of purpose and good intentions are sure to win at the end.

If time and space would permit it would be interesting to review some of these papers and bring forth many thoughts and suggestions that will possibly lie dormant for many years to come, but all we can do at this time is to commend to those who are truly interested in dentistry the reading of these papers and their discussions, which is beyond any question of doubt the best representation of the brains of the dental profession that has ever been published. America and American dentists should be proud of having accomplished so much in bringing to a successful issue such a great Congress. G. W. C.

Abstracts and Selections

ORAL MANIFESTATIONS OF LITHAEMIA.

BY J. LAMBERT ASAY, M. D., D. D. S., SAN JOSE, CAL.

(Abstract of Paper read before the Santa Clara County Medical Society, Santa Clara, Cal.)

Our knowledge of lithæmic pathology is being enlarged by many writers of prominence who have been and still are making the effects of uric acid toxæmia a special study.

Clinical experience teaches that this condition is more potent of evil than heretofore recognized. It exercises its baneful influences on tissues and organs, from which it is a question whether or not any are absolutely exempt.

The blood, rich in sodium carbonate, is made to furnish an additional atom of base to transform the soluble quadrurate into a biurate, thus compelling precipitation of the insoluble salt, producing the disease we recognize as gout.

Lithæmia makes the study of the glandular organs, most especially of the kidneys, of the utmost importance to the stomatologists. Without a familiarity with their anatomy, minute structure and physiology one will find himself at a loss to comprehend the pathology of those oral lesions due to some faulty condition of secretion, excretion and elimination of waste products.

Several years ago, in papers read before medical and dental societies, also in my lectures to college classes, I called attention to the close resemblance existing between certain forms of nodules in and underlying the pericementum with the concretions of gout in other localities and renal calculi, attributing them to toxæmia of uric acid. I was supported in this contention at the time by several of the most eminent stomatologists of the East who had already devoted much attention to the subject, and the fact of the relation of these calculi to each other is now almost universally accepted among such specialists.

There are two expressions of the uric acid diathesis in the mouth, the first being a true gouty condition of the alveolo-dental membrane characterized by a deposit of serumal calculi on the root of the tooth. The affection is most prevalent between the ages of 30 and 55 years, and is common to both sexes. Heredity is a prominent factor, though the disease is often acquired and may or may not exist conjointly with other gouty and rheumatic manifestations. It may be either acute or chronic, its appearance, however, being more generally in the chronic form, when almost the same phenomena are presented, but with less intensity of pain.

The first symptom to which our attention may be directed is repeated twinges of neuralgia along the inferior or superior dental nerve according to the location of the disease in either jaw, frequently extending into other branches of the trifacial. Unfortunately most cases are not presented in this primary stage. As a general rule, the teeth are free from caries, highly organized and of structure hard and dense. The incisive edges and masticating surfaces frequently show marked abrasion, this appearance being also claimed as diagnostic of the uric acid diathesis and due to the habit with rheumatoid and arthritic subjects of grinding their teeth together during sleep.

There being no caries, no indications of disturbance of the nerve pulp of any tooth on the affected side, nor evidence of abrasion, then by the process of diagnosis by exclusion, we can safely ascribe the cause of the neuralgia to systemic complications. These neurotic manifestations may disappear and return on different occasions owing to the excretory organs resuming their proper functions and reappear as elimination is again retarded.

At length comes a period when the affection is localized. If it be the acute form our attention is called to the intense, agonizing pain referred to some spot, usually on the outer border of the alveolus about midway of the root of the tooth. The mucous membrane is at first hyperæmic, but soon passes to that inflammatory purple shade indicating coagulation necrosis, simulating parulis. Suppuration takes place and the pus finds egress immediately over the affected spot, or traveling the very short distance discharges itself at the gum margin. If now an exploration be made of the pocket thus formed the instrument will meet with a roughened surface closely attached to the cementum, this roughness being caused by accretions of nodules of a stony hardness, previously deposited, which have acted as the

irritant center and set up the inflammatory conditions described. It is an error to suppose that these calculi have been deposited since the pocket was formed by suppuration, as has been sometimes asserted by those not favoring the uric acid origin of the disease, for, an incision made through the mucous membrane and removal of the alveolar wall over the affected spot before, or during the stage of hyperæmia will disclose the fact that the calculi are already adherent to the cementum, and particles will be found in the enveloping membrane and are the prime sources of the local lesion. They are blood exudates, and analysis shows them to be composed of urates, sometimes, however, masked by calcium phosphates precipitated from the saliva after the pocket has once been formed, permitting that fluid, charged with calcium salts, to find ingress.

Connective tissue appears to be selective for the deposition of urates. In the present instance no more inviting field could be presented, everything being admirably arranged for the purpose; the articulation of the tooth with the alveolus by means of the pericementum, which at once constitutes itself both ligament and periosteum, the mobility of the joint, though restricted, are both amply sufficient to invite encroachment of uratic deposits.

It is not to be understood that the mouth is always indicative of the uric acid diathesis, for the disease may expend its full force in other localities and the oral cavity give no sign. On the other hand, the lesion of the jaws may be the only evidence presented without any physical manifestation elsewhere, and this, too, in the absence of a rheumatic or gouty history, either hereditary or acquired. It is, therefore, with the object of directing your attention to this single and perhaps exclusive diagnostic sign of lithæmia that this paper is written.

That form of so-called pyorrhea alveolaris to which the better name of phagedenic pericementitis has been given, being different from that first considered, fully explains its own morbid anatomy. It is always chronic, progressing slowly without the more pronounced discomforts of the former, with extensive destruction of the pericementum, at first an interstitial absorption followed by a complete melting away, a molecular necrosis, of the alveolar walls forming the tooth socket until the tooth or teeth affected drop out, when the local lesion in that spot disappears, to return as other teeth in their turn become affected. Accompanying this form of the disease, there exists

that peculiar dyscrasia expressed in a lowered vitality, disturbance of the nerve centers, and other functional phenomena.

Phagedenic pericementitis, as a rule, exhibits uratic deposits only in the latter stages of the disease, and sometimes they are not perceptible throughout its entire course, though it is possible they may have existed in the beginning, mostly in the structure of the pericementum, but through the necrosis of that membrane, together with the continued flow of pus, or by the action of solvents produced by the local disease itself, or some other process not yet understood, the calculi may have disappeared. It is essentially a disease of suboxidation, and its identity with the uric acid diathesis can not be consistently questioned.

In clinical observation I have more often than otherwise found this form of the disease associated with chronic rhinitis, and in a few cases accompanied by nasal polypi. It is quite probable that the constant irritation by uric acid toxin produces a degeneration of the ethmoidal tissue in the region of the nasal passages, and is responsible for this form of nasal catarrh existing with the affection in the mouth as described.

The therapeusis of the disease is evident. The fact of uric acid excess being established, treatment should be pursued along this line. The local lesions of the mouth should receive attention, but a cure of them can only be expected by systemic medication by which the functions of the excretory organs will be restored and the *materies morbi* eliminated through the proper channels. As well try to quench the fires of Mount Pelee by scraping the sides of its crater with a hoe as to attempt to cure these local conditions by instrumentation and mouth washes alone. The pathogenesis must be considered and treatment intelligently pursued. Under these circumstances results will be markedly favorable.—*Uric Acid Monthly.*

(EXTRACT.)

MODERN BRIDGE WORK.

BY S. H. VOYLES, D. M. D., ST. LOUIS.

There is a great difference in the solders sold at the supply depots, particularly in the 18k, some makes requiring a great quantity of borax. These solders should be abandoned and other makes

tried until one is obtained requiring less flux. This is important, for if borax is permitted to reach the porcelain surface a check or break is very apt to follow, and where large quantities are used the subsequent expansion and sputtering makes it difficult to keep in place.

More important than the flux, however, is the investment. Its function is twofold. First, to retain and support the parts in position, and second, to secure an equal distribution of heat. The first is self-evident, the second is not so thoroughly understood as it should be.

Porcelains break in soldering either from an application of borax or by being heated or cooled unevenly, which means too rapidly.

It is known to all with even a slight knowledge of physics that there is a great difference in the time it takes different materials to transmit to thermal changes.

A knowledge of the different conductivities of the materials used is the secret of successful soldering. In an invested bridge with porcelain parts we have two materials with low conductivities, namely, the investment and the porcelain, while the metallic parts are all good conductors. And it must always be remembered that in using teeth with pins that the platinum pin is a good conductor, which means that it expands slowly when heated.

It is necessary for a successful and safe soldering that all the parts to be so joined should be simultaneously heated to the fusing point of the solder used. With the inexperienced there exists the dread that the porcelain will be heated too high and that the liability to break increases with the temperature. The opposite is true. Safety demands that the porcelain be heated in advance of the metallic parts and that temperature has nothing to do with breakage, but its uneven application is fatal.

It must be remembered that the platinum pins expand with heat. If the porcelain has been heated in advance of the metal, then its expansion has made room for the pin expansion. If this has not been done the pin expanding will possibly break the tooth. Two flames are best for even soldering, one as a general heater, the other, the blowpipe, to be used to reinforce the first and to heat at will particular parts of the investment.

For those practising in places not having gas, there are gasoline outfits which usually have the double flame for soldering. In cities with gas it is advisable to have a spider for the Bunsen. The invested

piece may be placed on this and heated almost to the soldering point while other work is being done. The spider or supporting frame sold in depots is of little or no value for this work; it is too heavy, not high enough, and has no cross arms to hold the work. A more satisfactory one can be made in a few minutes of soft iron wire, as heavy as can be bent easily; this can be made to fit the stem of the Bunsen and of a height that places the work in the hottest point of the flame.

In soldering, after trimming the investment piece, place it on the spider and turn the flame low for the drying out and melting of the wax. Melted wax can be removed with a pointed instrument or absorbed by small pieces of blotting paper; when this is done apply borax if deemed necessary, and place the solder in pieces suitable to the point to be soldered. It is advisable to solder all joints at one time and can usually be done. Now turn on the Bunsen to full flame. Remember that while the outside of the investment may be white hot, the interior may be comparatively cool, and because of the low conductivity of the material it takes some time for the interior to heat itself and the porcelain invested. Never let the blowpipe flame touch the metal backing the solder until they have a full red color from the heat coming through the investment. By playing the brush flame on sides, on bottom, of the investment to aid the Bunsen it should be heated until the solder flattens its pieces to the surfaces to be soldered.

If solder is to be drawn through continue to heat from below, if not the larger flame can now be played over metal parts and the solder flowed. If solder pulls from one tooth to another it is because one is hotter than the other. If solder "balls" it is because it is fusing, while the other surface is too cool to receive it in union. If the piece is not sufficiently soldered allow the Bunsen flame to continue and added pieces will almost fuse when placed. Unless you are using solder containing considerable zinc the pieces can be held at fusing point long enough to have all joints as desired, although there is no objection and no danger in repeating heatings if the precaution is taken to heat from below and keep the porcelain hottest.

Summary: Keep borax off the porcelain surface. Heat the investment from sides and bottom until surfaces to be soldered become hot enough to melt the solder, insuring that the porcelains are hotter than the pins and insuring also a perfect union of material. If the solder fuses at one end and not the other, heat the investment of other end.—*The Practical Dental Journal,* January, 1906.

A COUNTERBLAST TO DR. OSLER.

Dr. Wiley, Chief of the Bureau of Chemistry in the Department of Agriculture, has come forward as the champion of the elderly men, and shows that so far from an individual being useless at sixty, he is practically in the prime of life. The span of civilized life has been very considerably lengthened during the past fifty years by the aid of science, and Dr. Wiley is of the opinion that it will be possible in a few years to advance the limit of physical and mental activity to ninety.

Nevertheless, several factors must be taken into consideration before this patriarchal age can be reached, and it will not be given to all to attain to this eminence of years. In the first instance, the question of heredity enters into the matter, for nothing is more true than the Bible saying "that the sins of the fathers will be visited upon the children," and the man who does not inherit from his ancestors a sound constitution will be greatly handicapped in his endeavor to exceed the ordinary term of existence. But even thus handicapped, he may reach a green old age if he do but pay strict attention to certain rules throughout his entire life. He must be moderate in his habits, both as to eating and drinking.

Dr. Wiley is also a believer in the old axiom that "all work and no play makes Jack a dull boy." Indeed, he goes further than this and declares that too much work and little play will make Jack a sick boy.

Perhaps Dr. Wiley dwells with somewhat too much emphasis on the necessity of a sound pedigree in order to reach extreme old age. Of course, it is an immense aid to inherit a good constitution; but even without this adjuvant many men, by a rigid pursuance of careful methods of living, have overcome the handicap of heredity to a great extent, and have passed away at a venerable age. Cornari was a striking example of the truth of this statement.

The can be no doubt that men live much longer in these days than was formerly the case, and the tendency is in the same direction. Dr. Osler did not consider this fact when making his now celebrated statement and placed his limit of age too low.—*American Medical Journalist.*

THE PHYSICIAN AS A BUSINESS MAN.

Note.—For "Physician" read "Dentist."

Rightly or wrongly, the physician is regarded as by no means acute in business matters. That he is looked upon as not "a man of affairs" is evidenced by the manner in which the "get-rich-quick" fraternity—or "con"-fraternity—pester him. He is an object of their most unremitting attention, which fact, in itself, is a more or less conclusive proof that the medical man is somewhat childlike as regards the art of money making outside his own profession.

The members of the medical profession, as a rule, plead guilty to this indictment, although it must be borne in mind that there are some very notable exceptions. There are medical men in this country who are as keen and capable money makers as members of any other class. On the whole, however, it must be admitted that the doctor parts with his hard-earned coin to the wily promoter with surprising credulity. In the New York *Medical Journal* of a recent date, Dr. Frank Lydston discusses this matter editorially. His article deserves to be read carefully and inwardly digested by every physician in the United States. He describes vividly many ways in which the unworldly doctor is induced to enter into bogus schemes and gives the following excellent advice to his brother practitioners. He puts it in the form of certain fundamental facts of finance:

1. The man who has a profitable mining, land or agricultural scheme to finance is not compelled to go into the office buildings of our cities, or to the modest dwellings of our country practitioners, for the purpose of inducing them to invest their hard-earned dollars. Had I a really excellent mining or other scheme to promote, I think I could spend my time much more profitably among capitalists than among doctors or other professional men. The amount of unused capital in America that is lying in wait for judicious and profitable investment is so great that even the fools should be able to understand the situation.

2. The legal rate of interest is established by our general financial and commercial conditions. This legal rate is supposed to be a safe rate. Yet our men of great wealth, when they desire to make investments, buy Government bonds, the interest upon which is about

half the legal rate of interest. They do this business they consider the bonds the only investment which is absolutely safe. This is a hint that the physician who has a few hard-earned dollars which he is tempted to invest in wild-cat schemes would do well to remember.

3. The most important point is this: With every 1 per cent of interest promised above the legal rate, the danger compounds. The difference in safety between an investment which promises 5 or 6 per cent and one which, it is alleged, promises 10 per cent, is something staggering.

4. It is well to remember that most of the men who have lost money in speculation have done it while "backing another man's game." The professional gambler considers this a very dangerous practice. As he expresses it, "Something always goes to the 'kitty,' whose remorseless maw will inevitably break the outsider if he plays the game long enough." The little commission charged for turning deals on the stock exchange or grain market is the equivalent of the amount that is paid to a "kitty" in a gambling game. This amount, trivial as it is, constitutes terrific odds against the man who is playing the game from the outside. It is the fleece of which the lamb must inevitably be shorn in time.

Why the physician should be generally so incompetent in business affairs out of his own field of work is a question hard to answer offhand. His profession, perhaps, is so exacting that it leaves him little time to attend to other matters. The work of a doctor, too, brings him into contact with so much misery and suffering, that it is apt to make him unwordly and trusting. Again, it is more easy to gain an audience with a physician than with members of other professions, or business men. Be the reason, however, for the gullibility of the physician what it may, the fact remains that he is particularly open to the art of the fakir and swindler. There are signs that at last his eyes are being opened, and that in the future the doctor will lend a deaf ear to the wiles and blandishments of the mining promoter and others of that ilk.—*American Medical Journalist.*

(EXTRACT.)

A FEW REASONS WHY INLAYS SHOULD BE USED IN POSTERIOR TEETH.

BY G. C. MARLOW, LANCASTER, WIS.

We will touch upon the following reasons why inlays should be used in posterior teeth: (1) Durability, (2) compatibility or non-irritating to pulp tissue, (3) strengthens the frail walls of the tooth, (4) use of rubber dam limited as to time, (5) wide range of usefulness, (6) choice of color, (7) cleanliness, (8) general appearance.

(1) *Durability*—They will not wear out when exposed to mastication, neither will they deteriorate with age.

(2) *Compatibility or Non-irritant to Pulp Tissue*—We can use porcelain in close proximity to the pulp without disagreeable sensations from thermal changes, thereby saving many pulps that would otherwise necessitate devitalizing.

(3) *Strengthens the Frail Walls of the Tooth*—The union of the cavity wall and inlay by means of the cement is a decided support to the frail tooth structure.

(4) *Use of Rubber Dam, as to Time*—I never knew what punishment was until I sat in a chair at a dental meeting, and had a gold filling pounded into a cavity in a molar, with one of these painless electric mallets. I do not wish to throw any slurs at the gold workers, for some of my best friends, and some of the leading men of the profession, are very adept gold workers and have elevated the standard of good workmanship more than any other class of workmen.

(5) *Wide Range of Usefulness*—It is hard to realize that inlays can be used so generally in the mouth. There is no place that a gold or amalgam filling can be used that it would not be practical to use an inlay. In fact, the average practitioner can insert an inlay in a posterior or buccal cavity that will be more durable than either gold or amalgam.

(6) *Choice of Color*—Porcelain is the only filling material in use that gives us a choice of color. It is true that we are not always able to get a perfect match to the tooth substance, but we may match at least 75 per cent of the cases, and that is a better showing than leaving out the color problem entirely, as has been done heretofore. I

am looking forward to the time when some noble brother of the profession will come forward with a complete solution of the color problem.

(7) *Cleanliness*—This is a point that is very clear to porcelain workers. Food will not adhere to porcelain fillings. If it is deposited there it is very easily removed.

(8) *General Appearance*—There was a time when our patients were desirous of a display of gold, but that time has gone by. As an illustration: Last winter a young lady came into the office and on examination I found ten cavities in her upper teeth. I recommended inlays and she had them put in. Last week she came back, and an examination revealed twelve cavities in her lower teeth. She said: "Now, doctor, I want you to use inlays in all of those cavities; I like them so much better than gold."

In presenting this subject I have made statements without hesitancy that I would hardly have ventured putting on record two years ago. In the meantime I have thoroughly convinced myself that all I have said is true.—*The Dental Review.*

PRESIDENT'S ADDRESS.

BY J. B. PHERRIN, D. D. S.

It is not my purpose to tire you by a lengthy theoretical paper, but to mention in as brief a manner as possible a few points "for the good of the order."

Of all the dental societies organized, an alumni association holds a unique position among them. It is something quite natural that an alumnus regards his alma mater with love and respect, and in preference to all other professional ties. This is partially true of University alumni. There is a dignity about the institution which is only in rare cases found about corporation schools.

This may in part be because the institution is in the charge of the state and is encouraged by the attitude of the public who never enter its walls as students. This attitude is everywhere noticeable throughout our state when a word cast against any public institution is immediately resented by all classes.

In line with the foregoing suggestion may we not make another? In the present chaotic state of affairs in the national association of

*Read before the Alumni meeting of the S. U. I., Iowa City.

faculties, regarding requirements for entrance and graduation, commercialism is thoroughly felt.

Reciprocity, free trade and protection are vital points of interest in the arena today. Free trade may sometime come. Reciprocity at times seems near and looks good, but until that opportune time, protection should be advocated strongly as a safeguard to our beloved department, wherein lie our future hopes in the advance of ethics and the raising of the professional standard of dentistry. Standard raising is the theme of this note, and looking toward the accomplishment, we must have the hearty co-operation of the majesty of the law and the school and the help of the individual alumnus.

The will of the people is the law. It is they for whom protective laws are enacted. Properly impressed they will demand and support a higher standard. It is the belief of many prominent dentists and others that laws or rules of examinations that will influence our students to attend our university should be formulated, thereby students and school profit mutually.

Having all this in mind, we realize that the Dental Alumni Association holds a strong rein of restraint upon its members in matters of ethics. With this in mind, this suggestion is offered that even more stringent rules be made and enforced than are now attempted by other societies. The passing out year after year of a class of men so educated, and into whom is instilled the principles of higher ethics, can not help but clear our professional atmosphere of much of the offensive effluvia. Improvement will be noticeable in the glad hand between neighborhood dentists and the disappearance of commerciality.

Does it not appear that our school's financial good, as well as the operative skill and ethical attainment of the members of the profession would be enhanced and encouraged by demanding higher requirements from students upon entrance to the college and from graduates of other colleges upon entering the state?

In pursuit of these attainments, I would recommend that a resolution supported by the Alumni Association be directed to the proper source for their consideration. Does it not look reasonable that the proper authorities, informed of our moral support and deep interest in our alma mater, which is a public institution and has ever stood for truth, justice and right in matters of education and public benefits, will give attentive ear to our supplications and render such relief as in their ripe and honest judgment is best?

(EXTRACT.)

A METHOD OF UTILIZING THE BETTER QUALITIES OF AMALGAM AND GUTTA-PERCHA IN ONE FILLING.

BY W. C. GOWAN.

This filling is adapted to large distal cavities in cuspids and bicuspids, whose walls are too weak to permit gold filling, and in which amalgam, if used alone, would leak, and lend to the tooth an undesirable color.

Prepare the cavity as for any other filling, excepting that the margins do not need to be cut away so much as other fillings require. These large cavities do not need extension, so only the very frail, sharp edges, are to be trimmed so as to make a smooth margin, even where there is no dentine supporting the enamel.

Dry the cavity well and paint its whole surface with freshly prepared white chloro-percha. Into this press enough warm gutta-percha (white base-plate), to about half-fill the cavity, and before it cools press it with ball burnisher, so as to line all the walls of the cavity.

Mix the best quick-setting amalgam you can get; place a pellet in the cavity and burnish it so as to cover the gutta-percha completely. Heat in the flame a large burnisher and apply to the amalgam in the cavity until you see evidence that the gutta-percha is softened, then quickly exchange the large burnisher for a small one; heat it and use so as to somewhat puncture the filling in several places. Resume the large burnisher and quickly pack the filling solid. If any gutta-percha be found to have spewed outward at the margins, trim it away by a rapid sweep of a hot burnisher, then add enough amalgam to fill the cavity, burnishing well and complete the contour, and finish off the filling with burnishers.

Be sure to have enough amalgam over the gutta-percha to prevent the latter from touching the hot burnisher, else it will make trouble for you. Gutta-percha is at its best for insertion when the first blisters due to heat appear. In this state it is best conveyed to the cavity by the clean ball burnisher (not heated) with which it is packed. The cavity must be dry at the time filling is begun, and until amalgam is attached to gutta-percha by heat. After cavity is full saliva does no harm while finishing. In most cases no rubber

dam is necessary, a roll and a napkin being more easily applied and more agreeable to the patient.

A cavity thus filled will not leak, for gutta-percha inserted in this way is firmly adherent to the walls, and in the most intimate relation with every surface irregularity. It lends permanently a most acceptable color to the tooth. When no dentine remains to support a part of the labial or buccal enamel gutta-percha supplies its place in a most satisfactory way.

The amalgam is apparently uninjured by the application of heat enough to establish a firm adhesion of the gutta-percha to it, and no pain of any severity is felt by the patient.

Gutta-percha has many advantages over cement as an adhesive and protecting medium between amalgam and cavity wall. It is much cleaner and easier of application. It is whiter, a better non-conductor, and it is not friable. One application of force will not ruin it. It is proof against the solvent action of anything surrounding it in the mouth, so that if the amalgam, by change of form, admits moisture, it still is safe.

When I say that a tooth thus filled will not leak I speak both from observation of the fact in the mouth and from conviction founded on the known behavior of gutta-percha.

That the gutta-percha is adherent to the cavity as well as to the amalgam may be seen by experiment on extracted teeth. Fill them as here directed, and a few days afterward remove the fillings by force. Note the strength of adhesion mentioned.

Cuspid and sometimes bicuspid teeth, which otherwise could be restored only by crowning, may be by this filling repaired at less expense, and with better promise of health in both tooth and surrounding tissue. A pulpless cuspid tooth with mesial and distal cavities united a pulp a chamber can be restored to fairly respectable appearance and full utility, for I have done it.

The reasons for using anything else but gutta-percha as a filling are that its surface is not hard enough to retain a polished and cleanly appearance, nor to resist wear in positions exposed to attrition. Where unprotected it will yield to pressure, so that used alone it is not fit for contour fillings.

These physical characteristics do not, however, contra-indicate its use alone in approximal cavities in children's permanent incisors and cuspids, and in many labial and buccal cavities in teeth of chil-

dren or adults. I find it for these uses the best available material. It is very easily manipulated, and better still, it requires only such cavity preparation as may be secured with the minimum of pain. It is, moreover, the most reliable material we use to prevent recurrence of decay. Out of more than a thousand gutta-percha fillings inserted by myself I have yet to see one with recurrent decay beside it. This is more than I can say of any other material.

The addition of amalgam in the manner described is for the purpose of providing a hard, rigid surface to withstand pressure and attition, and to conserve cleanliness.

Where any amalgam filling is exposed to view finish it completely before it sets by wiping and burnishing, and do not afterward polish it with anything. If you would have amalgam look its best pay strict attention to this. Good amalgam finished to proper contour while setting and lightly burnished to a shine for the last touch, will, when it sets, have a fine frosted appearance by no means ugly. But if you polish it with grits, disks, strips or the like, it will, upon contact with food, turn dark and conspicuously ugly in appearance. This fact is demonstrated by trial and observation.—*The Texas Dental Journal.*

ULCERATION OF TOOTH SOCKETS.

When we are confronted with a flow of pus from the socket of a tooth we must first discover the cause. If serumal caculus deposits, first remove all deposits and, secondly, operate upon the soft tissues, but not until the socket is completely disinfected and cleansed. If the soft tissues be gouged and scraped and cut sufficiently to rid them of adherent dead and dying portions, causing a flow of blood to relieve turgidity and carry away the effete white corpuscles, we have a condition which will promise a cure. The weeping serum is not to be disturbed or burned or cauterized; let it alone. Simply direct your patient to keep the mouth itself clean.—Dr. A. W. Harlan, *Dental Cosmos.*

NECROLOGICAL

IN MEMORIAM.

WHEREAS, The activities of D. Howard Crouse having been rewarded by the rest that comes to those who labor, we, the members of the Press Club of Chicago, desire to express our regret that those activities have been thus terminated; representing, as does his death, a loss to his profession and a sorrow to those who loved him, therefore be it

Resolved, That in the death of D. Howard Crouse the Press Club of Chicago has lost a valued member, and his profession a man of ability and industry; and be it further

Resolved, That we extend to his widow, to his friends, not only our deepest sympathy, but that consolation that is contained in a belief in the Almighty God and His promises, and in the hope of a life beyond the grave, undisturbed by the cares of such a life as this earthly one and unfretted by the sorrow of separation. And be it further

Resolved, That these resolution be spread upon the records of the Press Club of Chicago, and that a copy of the same be transmitted to his widow.

JOY L. FRINK, D. D. S.,
DOUGLASS MALLOCK,
CHARLES WALTER BROWN,
Committee.

DR. JACOB CHADSEY.

Dr. Jacob Chadsey, who for thirty-three years practiced dentistry in one office in Newark, N. J., died of Bright's disease January 21. Dr. Chadsey was born November 7, 1832, at Hiller, Prince Edward County, Canada. His parents were of Vermont stock, having migrated to Canada in 1800. He was able to trace his ancestry as far back as 1300, it is said. He labored for many years to complete this task and traveled to Europe several times to verify his findings. His progenitors were natives of England.

When nineteen years old Dr. Chadsey was graduated from a classical academy and then entered the Western Medical College of New York. He spent three years at this institution and then returned to Canada, where he studied dentistry. Immediately after receiving his diploma Dr. Chadsey began the practice of his profession in Kalamazoo, Mich.

SOCIETY ANNOUNCEMENTS AND REPORTS OF MEETINGS

IOWA STATE DENTAL SOCIETY.

The forty-fourth annual meeting of the Iowa State Dental Society will be held at Des Moines May 1, 2 and 3, 1906.

CLINIC BY G. V. BLACK DENTAL CLUB.

This clinic was held at the old State capitol building in St. Paul, February 22-23. An excellent program was furnished and the meeting was well attended.

SEVENTH DISTRICT DENTAL SOCIETY.

The thirty-eighth annual meeting of the Seventh District Dental Society in the Chamber of Commerce, Rochester, N. Y., March 27 and 28, 1906.

NORTH DAKOTA DENTAL SOCIETY ORGANIZED.

The North Dakota Dental Society was organized January 16, Dr. T. E. Weeks, of Minneapolis, assisting. The first officers elected being: President, Dr. Rawlins, Bismarck; vice-president, Dr. Starling, Fargo; secretary, Dr. Sossman, Lisbon; treasurer, Dr. Rowan, Hillsboro.

RED RIVER VALLEY DENTAL SOCIETY.

The Red River Valley Dental Society held its regular meeting at Grand Forks, N. D., February 13. Clinics were given and an interesting and instructive meeting resulted. The following are the officers: President, Dr. Robertson, Crookston; vice-president, Dr. Argue, Red Lake Falls; secretary, Dr. Boles, Crookston; treasurer, Dr. Rowan, Hillsboro.

THE SOUTHWESTERN MICHIGAN DENTAL SOCIETY.

The Southwestern Michigan Dental Society will hold its annual meeting at Niles, Mich., April 10 and 11. Arrangements have been made for a very interesting and instructive meeting. A cordial invitation is extended to members of the profession. Arrange to attend this meeting. It will do you good and act as a spring tonic.

J. H. PALIN, President.

C. W. JOHNSON, Secretary and Treasurer.

INSTITUTE OF DENTAL PEDAGOGICS.

At the thirteenth annual meeting of the I. D. P. held in New York, December 28, 29 and 30, 1905, the following officers were elected for the year 1906: President, D. R. Stubblefield, Nashville, Tenn.; vice-president, J. H. Kennerley, St. Louis, Mo. Executive board: Ellison Hillyer, 472 Greene avenue, Brooklyn, N. Y.; L. P. Bethel, Columbus, Ohio; J. Q. Byram, Indianapolis, Ind. Master of exhibits, H. E. Friesell, Pittsburg, Pa.; master of new teaching facilities, C. E. Jones, Chicago, Ill.

SOUTHEASTERN DENTAL SOCIETY.

The meeting of the Southeastern Iowa Dental Association was held in Keokuk, January 23-24, and was one of the most interesting and profitable meetings in the history of the organization. There were seventy-eight members in attendance. The next meeting will be held in Fairfield. The election of officers resulted as follows: President, Dr. J. B. Monfort, of Fairfield; vice-president, J. T. Martin, of Moulton; secretary, George W. Slingluff, of Burlington; treasurer, W. E. Creath, of Ottumwa. Secretary Slingluff is serving his second term.

NATIONAL ASSOCIATION OF DENTAL EXAMINERS.

The twenty-fourth annual meeting will be held at the New Kimball House, Atlanta, Ga., commencing 10 a. m. Wednesday, September 14 and ending on the 17th.

The rates per day will be on the European plan, from $1.50 to $4.00; American plan, from $3.00 to $6.00. Governed by choice of rooms.

Convention hall will be in the hotel and every effort will be made by the proprietors for the care and comfort of the members.

Arrangements are being perfected for those desiring a short ocean trip for reduced rates, via the Clyde and Old Dominion steamship lines, notice of which will be given by circular later.

CHARLES A. MEEKER, D. D. S.,
Secretary and Treasurer, 29 Fulton street, Newark, N. J.

MISCELLANEOUS

GOLD MEDAL.

On page 0000 in front of this issue is a cut of the Gold Medal awarded to the Lambert Pharmacal Company by the Lewis and Clark Exposition. The Lambert Company are to be congratulated for the successful termination of their exhibition and for this demonstration of the merits of their products.

UNTREATED TEETH.

Irritative infectious matter sufficient to affect the pericementum and surrounding gum-tissue is found in connection with all untreated teeth; it appears coeval with the eruption, and continues, in ordinary conditions, as long as the teeth are retained; it is bounded only by the extent of the dental surface exposed in the mouth. As the result, the pericemental tissue and gums are in the state of undue sensitiveness and undue and often extreme vascularity. Under the prophylaxis treatment these tissues quickly lose their unnatural sensitiveness and recover the normal condition of low grade sensibility.—D. D. Smith, *Dominion Dental Journal.*

ANNOUNCEMENT.

The Board of Trustees of Barnes University, of St. Louis, Mo., announces the following as the present Faculty and Officers of the Dental Department: George H. Owen, D. D. S., Dean; Otto J. Fruth, D. D. S.; S. H. Voyles, D. D. S.; C. O. Simpson, D. D. S.; W. B. Arthur, D. D. S.; T. G. Donnell, D. D. S.; W. H. Love, D. D. S.; C. P. Strawn, D. D. S.; members of the Executive Committee: Doctors Owen, Fruth and Voyles.

The new building of the Dental Department will be completed about June 1, 1906, and will be of modern appointments.

JOHN M. WOOD,
President, Board of Trustees of Barnes University.

MAKING BANDS FOR ORTHODONTIA CASES.

When making bands to retain ligatures or expansion wires pinch the band on the side of the tooth where it is desired to have the retention. After soldering do not cut the ends close. File or grind a slot across the ridge made by the soldered ends, sufficient to receive the ligatures or wire.—Dr. R. E. Sparks, *Review.*

COST OF A CROWN.

From an economical viewpoint you can construct a porcelain crown at an expense not very much greater than the cost of ready-made crowns, and it does not take much longer to make a suitable cap, properly adapted to the root, than it would take to prepare your root, select a ready-made crown and then properly adjust it.—Dr. H. J. Goslee, *Cosmos.*

ADRENALIN WITH COCAIN.

The use of adrenalin as an adjunct to cocain has its decided merits, but as it increases arterial tension, in weak hearts it is very apt to produce syncope, especially in diabetes and Bright's disease, though while the sequelæ from the use of this drug might be alarming, in my experience so far they have not proved fatal.—Dr. Charles B. Isaacson, *Dental Digest.*

FOR HEATING WATER.

If you have a steam radiator near your washstand, have your plumber cut the cold water pipe, put in a "T" and attach a lead pipe, coil this around the radiator in the grooves and bring back to the hot water faucet on wash stand. This will supply you with hot water those months of the year in which the steam is used for heating.—Dr. H. W. McMillan, *Tri-State.*

PORCELAIN.

I have paid considerable attention to porcelain. It will not do all that is claimed for it, but with the proper material, and care in the fusing and in the cooling, it has a strength that is scarcely ever accredited to it. In cases where I wish to elongate the teeth, I have placed porcelain on the upper and gold on the lower, and I have used the clasp metal, and have had the porcelain tips come down and make pits in the gold in less than a year. As times goes on, in a few years the gold will wear down, and there will not be a scratch on the porcelain. I allow my furnace to cool with the inlay. You can not take porcelain out into the cool atmosphere or it will affect it and make it brittle. It will affect anything vitreous.—Dr. Wheeler, *Cosmos.*

GRINDING THE TEETH TO PRODUCE ESTHETIC LINES.

Good results may be obtained by grinding the teeth to restore the æsthetic line of the mouth. Certain lines will give the teeth an aristocratic look, and dentists should cultivate the art of finding the correct shape for the teeth. A line slightly one way or the other will have a great effect on the general appearance.—H. L. Schaffner, Florence, Italy.

DON'TS.

Don't put porcelain inlays in any of the posterior teeth; use gold inlays.

Don't make posterior bridges of porcelain where the bite is short, as you can not get sufficient strength to withstand the stress of mastication; and on the incisal edges of the incisors or cuspids be sure that your inlay will not strike the teeth of the opposite jaw, as in biting threads, toothpicks, etc.—Dr. J. H. Nicholson, *Era.*

BEST MATERIAL FOR LOWER PLATES.

I believe the best medium priced material to use in constructing a lower denture is Watts' metal, with rubber attachment, but they must be made thick enough to stand the work, and I have found them much stronger than rubber. The idea that the increased weight makes it easier for the patient to learn to use the denture, or contributes to comfort, has, however, been found incorrect.—Dr. F. V. Brooking, *Tri-State.*

NITROUS OXIDE CYLINDER EXPLOSION.

Last week a cylinder of nitrous oxide burst in a Glasgow firm's works, causing the death of one of their employes. The cylinder had been sent into the works as empty to be refilled. Apparently, however, the valve had become choked and the gas, being unable to get out, the cylinder, instead of being empty, was full of gas at high pressure. One of the workmen whose duty it was to refill the cylinders, applied a hot blowpipe flame to the neck of the cylinder to melt the solder with which the valve was held in place. Owing to the expansion of the gas with the heat the cylinder burst, killing the workman, who was carried twelve feet through the air by the force of the explosion. The cause of the accident is not without interest to dentists and medical men who use nitrous oxide as a general anæsthetic.—*The Dental Surgeon* (London).

PREVENTION OF IRREGULARITIES.

It is now claimed that the dental surgeon should, between the ages of six and ten, be able to guide the permanent molars into their proper positions relative to each other and prevent a great deal of the irregularity and malocclusion of adult teeth. Were impressions taken and models made of every little patient that comes into our hands, we should be able to detect many a malposition early enough to have it easily corrected.—E. A. Bogue, *British Dental Journal.*

NITRATE OF SILVER.

Nitrate of silver enjoys an enviable reputation as a prophylactic in the treatment of dental caries; in fact, it is the only chemical at our command that checks the progress of this disease. Its high reputation is of significant importance in the treatment of children's teeth. The various methods employed differ but little in their application. The tooth should be dried as much as possible, the softened decay removed and the nitrate applied in powder and then moistened with just enough water to form a solution and left in contact for five to ten minutes. The stick form may be employed for the same purpose; or blotting paper, according to Pierce; or still better, asbestos felt, as Kirk suggested, saturated with a concentrated solution, is sealed into the cavity. Holmes carries the powdered nitrate into the cavity upon softened gutta-percha; while Dubois of Paris prepares a special gutta-percha according to this formula:

℞ Gutta-percha ..... 5 parts.
Zinc oxid .....20 parts.
Silver nitrate ..... 2 parts.

Much benefit results from the early application of silver nitrate upon those peculiar denuded tooth surfaces known as erosion. At present we are not justified in giving a definite exposition of the etiology of erosion; investigations, however, seem to point to a form of alkaline caries. The process is certainly inhabited by the $AgNO_3$ application. The objection is the deep-black color which is produced upon the tooth substance. Hypersensitive dentine resulting from carious defects or senile atrophy of alveolar tissues is much benefited by the silver application. For the cauterization of aphthous growth in the oral cavity, the destruction of hypertrophied gingivæ and similar purposes it is recommendable. As a stimulating astringent and antiseptic, applied in various dilutions, for the treatment of suppurative processes of the antrum and for so-called "dry sockets" it deserves much praise.—*Hints.*

REPAIRING A MATRIX FOR AN INLAY.

No matter how careful one is in burnishing a matrix in a deep cavity it can seldom be done without tearing the matrix at the bottom. I burnish the matrix in the cavity carefully, regardless of the tearing at the bottom, and then take a pellet of gold, unfold and cut out a piece that will cover the bottom of the cavity, and press it to the place in the cavity, using firm pressure, after which I burnish it around evenly and then press in a little wax. The matrix can then be removed and the wax burned out in the furnace. This makes a matrix complete and there is no danger of the porcelain running through and causing a misfit.—Dr. C. J. Hadley, *Review.*

TEETH A CAUSE OF GENERAL PATHOLOGICAL CONDITIONS

A child twenty-two months old was sick ten days. It was restless and fretful, with temperature rising irregularly, from 101° to 104° F. As a cause almost every possible thing had been considered—typhoid fever, malaria, etc. At last the child's movements drew attention to the ears, and mastoiditis was suggested. I was asked to see the little one and went over the case very carefully from several standpoints. I found no tenderness over the mastoids, no discharge from the ears, but the drum membranes were reddened and slightly bulging—would probably have ruptured within forty-eight hours. On inspecting the mouth the cause of all the trouble was quite apparent. The points of four cuspids were just barely through, and four molars were well advanced. As the father and mother were both physicians, and as in a similar case to which I had been called in consultation a few weeks previously I had been told by the attending physician that such symptoms could not be caused by difficult dentition, I hesitated to say that in my opinion the teeth were the cause of all the trouble. So thoroughly convinced was I, however, that I gave voice to the opinion, and suggested a thorough lancing of all the gums, and giving a free laxative, and bromid and gelsemium to quiet the nervous system. There was no nonsense about those parents, and they insisted upon immediate action. About a week later I learned by telephone that the child was all right, it having at once begun to improve. Some months later the mother thanked me very cordially for my diagnosis and treatment. She informed me that teeth were playing a very important part in her diagnosis in pathological conditions of children.—*Dr. Kate W. Baldwin, Brief.*

PERSONAL AND GENERAL

Dr. J. O. Seastrunk, of Tyler, Texas, died of brain trouble, causing partial paralysis of the left side, aged fifty-nine years.

Robbed.—For the second time this winter the office of Drs. C. R. and W. H. Scholl at Reading, Pa., was robbed February 16.

Dr. Joseph N. Bulger, a dentist who practiced at Shelsea and Quincy, Mass., died February 10 at his home in Boston of pneumonia.

Wm. T. Laroche, a dentist at Harrington Park, N. J., died February 8. He was 83 years of age and was born at Frenchtown, N. J.

Twice Robbed.—Dr. George DeLong suffered a considerable loss through burglars who robbed both his office and residence.

The Jo Daviess County Dental Society met in Galena January 31. Papers were read by Drs. Stryker of Galena, H. C. Puckett and J. E. Miller of Warren.

International Dental Congress.—Arrangements are under way for an international dental congress to be held at Norfolk, Va., in 1907 during the Jamestown exposition.

Students Fined.—Three students were arrested for illegal practice in New York City January 31. All pleaded guilty and were fined $50 each. The County Dental Society prosecuted.

A Good Dental Bill.—A bill which contemplates having the dental board in Iowa give recognition to certificates granted to dentists in other states where the Iowa certificates are recognized, has been placed on the house calendar with approval.

After being successively a newsboy, 'varsity football player and dentist, Charles J. Jewell, who has an office in the University block, will again change his occupation, this time going into the business of manufacturing tasteless and odorless castor oil.

Bankrupt.—Morris P. Hart, dentist, of 262 West Twenty-third street, New York, has filed a petition in bankruptcy, with liabilities $5,024 and no available assets. Of the debts $4,016 is for borrowed money in this city, Kansas City, Mo., and Ellsworth, Kas., $928 is for merchandise in Louisville, Ky., and $80 for breach of contract in New York.

Iowa City Clinic.—With the largest attendance in the history of the university, the third annual alumni clinic of the College of Dentistry, at Iowa City, was held February 4-5. Election of officers resulted in the following selections: President, Dr. A. W. Starbuck of Iowa City; vice-president, Dr. F. B. James, Wilton Junction; secretary, Dr. W. J. Brady, Iowa City, and treasurer, Dr. C. M. Work, Ottumwa.

Students Fight a Duel.—Two students at the University of Pennsylvania, whose homes are in Paris, fought a duel February 17 on Franklin field, Philadelphia, with half-inch point foils to settle a dispute which occurred in the class room. The principals were Georges Emile T. Beltrami and Clataire Marie Boudy. The two men are members of the senior class of the university dental school. The affair was practically bloodless.

Warren County Dental Society.—The annual meeting of the Warren County Dental Society was held on January 13 at Monmouth. The occasion was the election of a new board of officers for the coming year and nearly all of the members from all over the county were present. At the election of officers Dr. H. W. McMillan, the retiring president, presided. Those elected were as follows: President, J. F. Kyler, Kirkwood; vice-president, P. S. Orth; secretary, H. McMillan, Roseville; treasurer, W. S. Phelps; librarian, J. M. Evey; program committee, R. W. Hood and H. W. Scott; board of censors, H. W. McMillan, O. M. Daymude and A. W. Glass.

Dr. Josephus Requa Honored.—A banquet was tendered Dr. Josephus Requa by his fellow members of the Rochester Dental Society at the Rochester Club January 23. Dr. Requa is one of the oldest practicing dentists in the State and it was in recognition of his long and faithful services to the profession that the banquet was held. Handsome menus were given the guests and among the novel features it contained were verses from the best known poets that applied to the different dishes and liquids. Dr. F. L. Sibley acted as toastmaster and during the evening called upon the following speakers, who spoke on the following subjects: "Blazing the Trail," Frank French; "The Hour Glass and the Scythe," H. S. Miller; "Professional Diplomacy," R. H. Hofheinz; "At the Feet of Gamaliel," J. H. Beebee; "The Clansman," J. Edward Line; "Our Kind," W. W. Smith.

Stop Thief.—Editor American Dental Journal, Chicago, Ill. On or about December 16, 1905, a fellow signing his name, W. E. Ford, was in this city soliciting subscriptions to the *Ladies' Home Journal* and *Saturday Evening Post.* He seemed to make a speciality of soliciting subscriptions of dentists, and several transferred a part of their hard-earned coin to him for a little receipt bearing the heading "The Curtis Publishing Company," which seemed to be the genuine article, and signed, W. E. Ford. Subsequent investigation reveals the fact that he is a swindler and said publishing company offers a standing reward of twenty-five dollars ($25.00) for his arrest and conviction. In appearance he was about 5 feet, 7 or 8 inches tall, weighed about 150 pounds, smooth-faced, 30 or 35 years of age, but had many gray hairs. He had a cleft palate and wore an obdurator, which enabled him to converse with very little annoyance to himself, and could not be readily detected in his speech. He furthermore said he was going to Chicago to be operated on for same cleft palate by Dr. Brophy. Now, if you wish to publish this, or any part of it to warn our brothers of the fraternity, and can in any way apprehend the rascal and bring him to justice, I hope you will do so. Yours truly, S. F. Heverly, D. D. S.

A Rare Old Book.—Dr. Crowell, of Monticello, Ind., has presented to the Northwestern University Dental School a book published in 1832. The title is Practical Guide to Operations on the Teeth, by James Snell.

Bankrupt.—Clinton S. Herbert, a dentist in Detroit, has filed a petition in bankruptcy before Judge Swan, giving his liabilities at $36,400.25, and his assets $553.73. The liabilities consist mostly of claims by merchants in England and Canada.

Dentists Entertain at Dinner.—The members of the Dental Society of the District of Columbia gave a dinner of forty covers January 31 at Rauscher's in honor of Messrs. C. H. Syme and Charles A. Douglas, the attorneys of the society. Dr. Edward C. Kirk, dean of the dental department of the University of Pennsylvania, was one of the guests.

Burglars Caught.—The office of Dr. Joseph Josephson at 26 Canal street, New York City, was entered during the night of January 29, and material and instruments to the value of several hundred dollars taken. Two days later two young men were arrested while trying to pawn the instruments.

Dentist Murdered.—In a quarrel over a bill of 45 cents claimed to be due him, Henry F. Falkinson, a plasterer, shot Dr. Drake, a dentist of Ashley, N. D., January 22. Drake died in ten minutes. Falkinson walked out of the office where the crime was committed, and has not been seen since. Drake was married and had a wife and child.

Dentist a Bigamist.—Edward B. Vogel, dentist, who pleaded guilty to a charge of bigamy, was sentenced to imprisonment for not more than four years and nine months and not less than three years and nine months. Vogel married every woman that would have him, and when he was arrested he had four wives. He said that when a pretty woman sat in his dental chair he could not help making love to her.

Dead to the World.—The dentists of Port Clinton, Ohio, have put their heads together and decided to cut out all advertising. They will take their professional cards out of the papers and may possibly take down their street signs and scrub their names off their windows. They will not allow their names to be mentioned in programs or advertising dodgers and they will not pay for this notice and no one has asked them to.—*Port Clinton Republican.*

REMOVALS.

Dr. A. D. Wilkinson, from Hartford, Conn., to Ivorytown; Dr. H. F. Henneman, from Menominee, Wis., to Sauk Center; Dr. K. W. Houston, from Chicago to Rockford, Ill.; Dr. Garretson, from Rockford to Peoria; Dr. Green Lemly, from Richland, Iowa, to Grinnell; Dr. Frank Henry, from Greensville, Ind., to Assioute, Egypt; Dr. Ross, from McHenry, Ill., to Greenwood.

SANITOL IN MUSIC.

Now "Sanitol" is to be the "Best for the Ear" as well as "Best for the Teeth," for the composer of "Hiawatha," "Silver Heels," "Marjery," "Poppies," and other popular marches and two-steps, has named his latest and best two-step and march, "Sanitol."

The music is dedicated to the president of the Sanitol Chemical Laboratory Company, Mr. Herman C. G. Luyties, and already one of the great concert bands of the country has brought to this new composition an enthusiastic reception.

We have received a copy of this march from the Sanitol Company and we understand that copies have been sent to the dentists all over the country with the compliments of the president.

The music is delightful, is full of life and has been received with great favor in musical circles. Every dentist should have one in his home and additional copies, we understand, can be secured from all music stores.

American Dentist in Africa.—Dr. Arthur E. Healy of Rockland, Maine, has returned from a trip of over three years through South and central Africa with a portable dentist's outfit. Dr. Healy was the only American on the first through train to Victoria Falls, and was the first American to register at the Victoria Falls Hotel on its opening in 1904. It was late in the summer of 1902 when Dr. Healy arrived in Africa. He took with him a portable dentist's chair and outfit, weighing about 600 pounds. This outfit he transported from place to place with a team of mules or bullocks. American mules had been shipped to Africa in great numbers during the Boer war. The roads in many places were merely blazed trails, and sometimes Dr. Healy was a week traveling eighty miles. Dr. Healy reached Cape Town in August, 1902, just after the close of the Boer war. All the way from Cape Town to Kimberley, a distance of 700 miles, he saw dead American mules in great numbers by the roadside. In the mining settlements he found many patients. The miners were glad to have work upon their teeth, which had been done in a bungling manner by English and Dutch surgeons.

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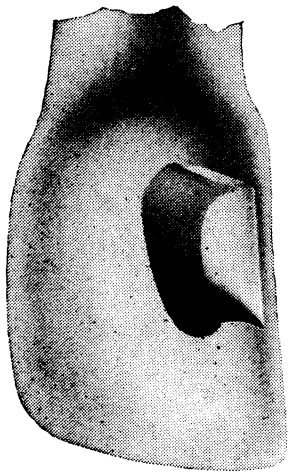

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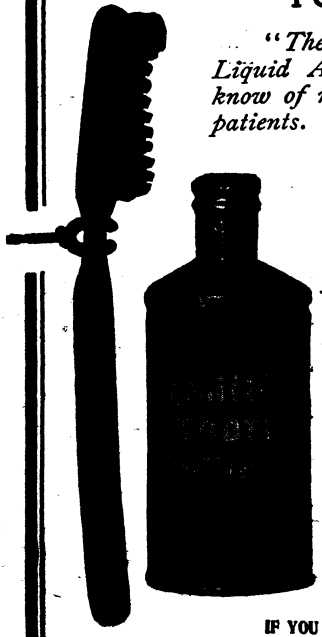

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